

**STIPULATION FOR WITHDRAWAL OF PROTESTS**

This Stipulation is made and entered into between the Southern Nevada Water Authority (SNWA) and the United States Department of the Interior, Bureau of Land Management, National Park Service, and United States Fish and Wildlife Service, United States Department of Defense – Nellis Air Force Base, and the United States Department of Energy, National Nuclear Security Administration (collectively the “Federal Agencies”). Collectively, SNWA and the Federal Agencies are referred to as the “Parties”.

**RECITALS**

- A. Currently there are approximately 4,500, 3,700, and 1,700 acre-feet per year (afy) of permitted groundwater rights in Three Lakes Valley South, Three Lakes Valley North, and Tikapoo Valley South, respectively. Of this amount, SNWA has permitted rights to 2,618 afy (Permit Nos. 54062 and 54066), 3,700 afy (Permit Nos. 54068, 54069, and 54060), and 1,700 afy (Permit Nos. 53950, and 53951), in Three Lakes Valley South, Three Lakes Valley North, and Tikapoo Valley South, respectively (“SNWA Water Rights”).
- B. On May 17, 2005, SNWA filed applications 72787 through 72797, inclusive, for permission to change the points of diversion for the SNWA Water Rights (“SNWA’s Applications”). The intent of SNWA’s Applications is to move current points of diversion to locations within Three Lakes Valley South. SNWA intends to pump its existing groundwater rights with the concurrent monitoring, management, and mitigation specified in Exhibit A.

- C. The Federal Agencies filed timely protests to the granting of changes in points of diversion under SNWA's Applications pursuant to the Federal Agencies' responsibility to protect state and federal water rights and other water-dependent resources, including Devils Hole and Corn Creek Springs, of the Federal Agencies ("federal rights and resources") in the Area of Interest, defined as the Ash Meadows Sub-basin of the Death Valley Regional Flow System as defined by *Waddell and others, 1984* and the portion of Las Vegas Valley encompassing the Desert National Wildlife Range and within the Nevada Test and Training Range. The Federal Agencies are required by law to manage, protect and preserve federal rights and resources that fall under their jurisdiction. A number of these federal rights and resources occur within or in the vicinity of the Area of Interest.
- D. The Federal Agencies assert that groundwater withdrawals from Three Lakes Valley South pose a risk of adversely impacting senior federal water rights and water-related resources and are desirous of working in a cooperative manner with the SNWA to protect these resources.
- E. The Parties acknowledge that Nevada Water Law provides pursuant to NRS 534.110(4) that "It is a condition of each appropriation of ground water acquired under this chapter [534] that the right of the appropriator relates to a specific quantity of water and that the right must allow for a reasonable lowering of the static water level at the appropriator's point of diversion." Further, pursuant to NRS 534.110(5), Nevada Water Law "does not prevent the granting of permits to applicants later in time on the ground that the diversions under the proposed later appropriations may cause the water level to be lowered at the point of diversion of a prior appropriator, so long as the rights of holders

of existing appropriations can be satisfied under such express conditions.” It is the intent of the Parties that this Stipulation provides the initial “express conditions” to allow the development of the SNWA Water Rights and Applications to proceed, however, such future conditions may be different based on implementation of the monitoring, management and mitigation plan specified in Exhibit A, attached to this Stipulation and made a part hereof.

- F. The State Engineer has set an administrative hearing on the protests of the Federal Agencies and other protestants commencing November 28, 2005.
- G. The Parties acknowledge that other entities and individuals have lodged protests to SNWA’s Applications, but such additional protestants are not Parties to or in any way bound or prejudiced by this Stipulation. Further, these protestants may enter into stipulations with SNWA concerning the SNWA Water Rights and Applications. Such stipulations shall not require the participation of the Federal Agencies nor modify in anyway the intent or content of this Stipulation, nor shall the Federal Agencies be bound or prejudiced by such stipulations.
- H. The Parties agree that the preferred conceptual approach for protecting senior federal water rights from injury and federal water-related resources from unreasonable adverse impacts from ground water pumping in the Area of Interest is through the use of monitoring, management and mitigation of groundwater pumping. The common goal of the Parties is to manage the development of the regional carbonate-rock aquifer and overlying basin-fill aquifer systems as a water resource without causing any injury to senior federal water rights and/or unreasonable adverse impacts to federal water-related resources. Groundwater and the effects of pumping need to be properly monitored and



managed to avoid adverse impacts to the Area of Interest. There is a need to better understand the response of the aquifers and associated discharge points to pumping stresses through the development of permitted quantities of groundwater pursuant to the monitoring, management and mitigation plan as set forth in Exhibit A to this Stipulation. The Parties have determined that it is in their best interests to cooperate in the collection of additional hydrologic and hydrogeologic information, including conducting numerical ground water flow modeling, about the regional carbonate-rock and basin-fill aquifer systems within the Area of Interest.

- I. The Parties desire to resolve the issues raised by the protests according to the terms and conditions contained herein.

NOW, THEREFORE, in consideration of the mutual promises and covenants contained herein, the Parties do agree as follows:

1. The Federal Agencies hereby expressly agree to withdraw their protests to the Applications and agree that the Nevada State Engineer may rule on the Applications based upon the terms and conditions set forth herein. It is expressly understood that this Stipulation is binding only upon the Parties hereto and their successors, transferees and assigns, and shall not bind or seek to bind or prejudice any other Parties or protestants, including the United States as trustee on behalf of the any Indian tribe.
2. The Parties agree to implement the Monitoring, Management and Mitigation plan, attached hereto "Exhibit A", which is expressly incorporated into this Stipulation as if set forth in full herein, if and only if the Nevada State Engineer grants SNWA's Applications for changes in points of diversion for permits 53950, 53951, 54060, 54068, and 54069, in total or in part. In the event the Nevada State Engineer only grants SNWA's

Applications for changes in points of diversion for permits 54062 and 54066, in total or in part, SNWA agrees that it shall negotiate in good faith with the Federal Agencies to develop “sufficient monitoring and plans for mitigation of impacts, including cessation of pumping, if necessary”. (Ruling 5465, Conclusion of Law XV, page 61) The Parties further agree to terms and conditions contained in Conditions for Drilling and/or Sampling the SNWA-1 Monitoring Well, attached hereto as “Exhibit B”.

3. This Stipulation does not waive any authorities of the Federal Agencies or the United States, including any other agency or bureau not specified in this Stipulation, nor relieves SNWA from complying with any federal laws, including, but not limited to, the National Environmental Policy Act, the Endangered Species Act, the Federal Land Policy and Management Act, and any and all rules and regulations thereunder. It is the expressed intention of the Parties that by entering into this Stipulation, the Federal Agencies and the United States are waiving no legal rights of any kind.
4. This Stipulation is not intended to change the applicability of state law or other applicable law to the protection of federal water rights that are or have been created under such state or other applicable law. Nor is this Stipulation intended to modify the legal standard by which such rights are protected. It is the expressed intention of the Parties that by entering into this Stipulation, SNWA is waiving no legal rights of any kind.
5. The Parties expressly acknowledge that the Nevada State Engineer has, pursuant to both statutory and case law, broad authority to administer groundwater resources in the State of Nevada and, furthermore, that nothing contained in this Stipulation shall be construed as waiving or in any manner diminishing such authority.

6. The Parties agree that a copy of this Stipulation shall be submitted to the Nevada State Engineer prior to the commencement of the administrative proceedings scheduled to begin on November 28, 2005. At that time, the Parties shall request, either in writing, or on the record at the beginning of the scheduled proceeding, that the State Engineer include this Stipulation, Exhibit A, and Exhibit B as part of the permit terms and conditions, in the event that he grants SNWA's Applications for changes in points of diversion for permits 53950, 53951, 54060, 54068, and 54069, in total or in part, and 54062 and 54066 subject to paragraph 2 of this Stipulation. Following the submission of this Stipulation, Exhibit A, and Exhibit B to the State Engineer, then the Federal Agencies, at their option, may attend the hearing, but will not present a case or any witnesses, issues or statements unless necessary to explain or defend this Stipulation, Exhibit A or Exhibit B. Nor will any of the Federal Agencies assist any other party or protestant in presenting a case, witnesses, issues or statements.
7. SNWA shall submit a copy of this Stipulation, and Exhibits A and B to the Stipulation, to the Bureau of Land Management and request that it be included in any Biological Assessment prepared for Three Lakes Valley Water Development Project, or any other project related to the development of the SNWA Water Rights or Applications.

8. Notices. If notice is required to be sent by the Parties, the addresses are as follows:

If to Federal Agencies:

District Manager  
Las Vegas Field Office  
Bureau of Land Management  
4765 W. Vegas Drive  
Las Vegas, NV 89108-2135

Supervisor



Nevada Field Office  
Fish and Wildlife Service  
1340 Financial Blvd., #234  
Reno, NV 89502

Branch Chief  
Water Rights Branch  
National Park Service  
1201 Oak Ridge Drive, Suite 250  
Fort Collins, CO 80525

Commander  
99<sup>th</sup> Air Base Wing  
4430 Grissom Ave. Suite 110  
Nellis AFB, NV 89191-6520

Kathleen A. Carlson, Manager  
U.S. Department of Energy  
National Nuclear Security Administration  
Nevada Site Office  
232 Energy Way  
North Las Vegas, NV 89030

If to SNWA:

General Manager  
Southern Nevada Water Authority  
1900 E. Flamingo Road  
Las Vegas, NV 89153

9. Any party hereto may transfer or assign its interest in the water rights here involved. Any and all transferees and assignees shall be bound by the terms and conditions of this Stipulation. As a condition to any such transfer or assignment, the transferee and/or assignee shall execute a stipulation expressly stating it is bound to all of the terms and conditions of this Stipulation.

10. This Stipulation shall be governed in accordance with the laws of the State of Nevada to the extent not inconsistent with federal law.
11. Copies of all correspondence between and data gathered by the Parties pertinent to the Area of Interest shall be submitted to the Nevada State Engineer. It is the intentions of the Parties hereto that the Nevada State Engineer shall be kept informed of all activities in the same fashion as are the Parties hereto.
12. By entering into this Stipulation, the Federal Agencies do not become a party to any proceeding other than the protest proceeding referenced above or waive its immunity from suit or consent to or acknowledge the jurisdiction of any court or tribunal. Nothing in the Stipulation shall affect any federal reserved water rights of the Federal Agencies or the United States on behalf of any Indian Tribe and the Federal Agencies by entering into this Stipulation do not waive or prejudice any such rights. The Federal Agencies reserve all legal rights, of any kind, it possesses pursuant to or derived from Executive Orders, acts of Congress, judicial decisions, or regulations promulgated pursuant thereto. Neither party waives its rights to seek relief in any appropriate forum of its choice not expressly prohibited by this Stipulation.
13. Any commitment of funding by the Federal Agencies or the SNWA in this Stipulation or otherwise is subject to appropriations by Congress or the governing body of the SNWA as appropriate.
14. The drilling and sampling of monitoring well SNWA-1 as described in Exhibit A shall be subject to the Conditions for Drilling and/or Sampling the SNWA-1 Monitoring Well, as described in Exhibit B regardless of funding mechanism or drilling contractor.
15. This Stipulation may be amended by mutual agreement of the Parties.



16. This Stipulation sets forth the entire agreement of the Parties and supercedes all prior discussions, negotiations, understandings or agreements. No alteration or variation of this Stipulation shall be valid or binding unless contained in an amendment in accordance with paragraph 14.
17. This Stipulation is entered into for the purpose of resolving a disputed claim. The Parties agree that the Stipulation shall not be offered as evidence or treated as an admission regarding any matter herein and may not be used in proceedings on any other application or protest whatsoever, except that the Stipulation may be used in any future proceeding to interpret and/or enforce the terms of this Stipulation. Further, the Parties agree that neither the Stipulation nor any of its terms shall be used to establish precedent with respect to any other application or protest in any water rights adjudication or water rights permitting proceeding before the Nevada State Engineer or any other proceeding.
18. The terms and conditions of this Stipulation shall be binding upon and inure to the benefit of the Parties hereto and their respective personal representatives, successors, transferees and assigns.
19. This Stipulation will become effective as between the Parties upon all Parties signing this Stipulation. The Parties may execute this Stipulation in two or more counterparts, which shall, in the aggregate, be signed by all Parties; each counterpart shall be deemed an original as against any Party who has signed it.
20. Other entities may become Parties to this Stipulation by mutual assent of the Parties.

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement on the dates written below.

UNITED STATES DEPARTMENT OF THE INTERIOR

Bureau of Land Management

By

Ron Wender

Title:

Nevada State Director

DATE: November 25, 2005

UNITED STATES DEPARTMENT OF THE INTERIOR

Date: 11/21/2005

Fish and Wildlife Service

By Steve Thompson

Title: CNO MANAGER



UNITED STATES DEPARTMENT OF THE INTERIOR

Date: 11/22/2005

National Park Service

By Guadalupe Garcia

Title: Regional Director, Pacific West

Date: 11-21-05

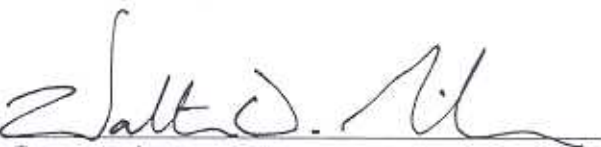
DEPARTMENT OF ENERGY

By:   
Kathleen A. Carlson  
Manager, NNSA Nevada Site Office

Date: 23 Nov 05


DEPARTMENT OF DEFENSE

NELLIS AIR FORCE BASE

By   
Commander  
99<sup>th</sup> Air Base Wing



SOUTHERN NEVADA WATER AUTHORITY

By 

Title: GENERAL MANAGER

ATTEST:

Deanne K. West

## EXHIBIT A

# MONITORING, MANAGEMENT AND MITIGATION PLAN FOR DEVELOPMENT OF EXISTING WATER RIGHTS IN THREE LAKES VALLEY SOUTH PURSUANT TO APPLICATION NOS. 72787 THROUGH 72797, INCLUSIVE, BY THE SOUTHERN NEVADA WATER AUTHORITY 11/18/05

### Introduction

This monitoring, management and mitigation plan (Plan) is a component of an agreement between the Southern Nevada Water Authority (hereinafter referred to as "SNWA"), the U.S. Department of Energy – National Nuclear Security Administration, U.S. Department of Defense-Nellis Air Force Base, and the U.S. Department of Interior bureaus including U.S. Fish and Wildlife Service, U.S. Bureau of Land Management, and U.S. National Park Service (hereinafter referred to as the "Federal Agencies"). Collectively, SNWA and the Federal Agencies are hereinafter referred to as the "Parties".

This Plan describes the Parties obligations regarding the development, monitoring, management, and mitigation related to SNWA's existing groundwater rights currently held by SNWA pursuant to Permit Nos. 53950, 53951, 54068, 54069, 54060, 54062, and 54066 ("SNWA Water Rights") for which SNWA has filed applications 72787 through 72797, inclusive, ("SNWA Applications") to change the existing points of diversion of the SNWA Water Rights to points of diversion within Three Lakes Valley South. The Plan consists of three principle components:

1. *Monitoring Requirements* to include monitoring wells, spring flow measurements, water quality analyses, quality control procedures, and reporting requirements; and
2. *Management Requirements* to include the creation of a Technical Review Panel ("TRP") to review information collected under this Plan and advise managers, use of a numerical ground-water flow model to predict effects of pumping, and establishment of a decision-making process; and
3. *Mitigation Requirements* to modify the location and quantity of pumping if necessary to avoid unreasonable adverse effects to federal water rights and resources or to rehabilitate, repair or replace resources affected by pumping.

### *Common Goal*

The common goal of the Parties is to manage the development of the SNWA Water Rights in their entirety from Three Lakes Valley South, without resulting in any injury to senior federal water rights or unreasonable adverse impacts to federal water resources. The Parties will collaborate on technical data collection and analysis and will rely on the best scientific information available in making decisions required by the Plan.

## Monitoring Requirements

### *General*

The Parties will implement monitoring to document effects of SNWA's pumping in Three Lakes Valley South to predict any injury to senior federal water rights or unreasonable adverse impacts to federal water resources.

### *Existing Monitoring Wells*

The Parties will continue to participate with the USGS and various sponsoring agencies to ensure that the wells identified in Table 1 as "Existing Well" are measured at the frequency indicated. Where water levels are not being measured continuously for existing wells, the Parties will work together to establish a continuous data record, as is feasible. In the event that one of the wells in Table 1 is dropped from any agency's monitoring network currently collecting data, the Parties will work to re-establish monitoring activities at that location.

- Modification of these monitoring requirements, including any addition or subtraction of wells listed in Table 1 may be made through consensus recommendations from the TRP as set forth in the *Management Requirements, Technical Review Panel* section of this Plan.
- Except as otherwise provided in this Plan, each Federal Agency is responsible for monitoring their own resources, including water rights, water resources and other water related attributes, and for sharing this information with the other Parties.
- The Federal Agencies may pursue additional funds, including funds that may be available under the Southern Nevada Public Land Management Act (SNPLMA), to establish new wells as defined in this Plan or additional wells and/or to obtain water chemistry data for meeting future monitoring needs under this Plan. SNWA shall use its best efforts to support the Federal Agencies efforts to secure funds for new or future installation of monitoring wells or additional sampling identified in this Plan.

### *New Monitoring Wells*

- The Parties shall work together on the design, location, and construction of up to seven new monitoring wells, each identified as "New Well" in Table 1 and generally depicted in Figure 1 (attached). Such wells will be located, designed and constructed to achieve the monitoring goals and requirements of this Plan. It is anticipated that up to seven wells may be constructed by the Parties, contingent upon the availability of funding provided through SNPLMA.
- If SNPLMA funding is available:
  - The Federal Agencies, will jointly fund and construct three monitoring wells at the locations generally identified on the attached map as SNWA-1, Corn Creek Mid-Field, and Ash Meadows Mid-Field.
  - The SNWA will fund and construct four monitoring wells at the locations generally identified on the attached map as FA-1, Creech Near-Field, 161W514M, and SNWA-3.



- If SNPLMA funding is not available:
  - Although the Parties anticipate SNPLMA funding will be made available for this effort, in the event that it is not, the parties recognize that they may need to meet and confer on the selection criteria and location of the four wells to be constructed by the SNWA. In the absence of an additional or alternate scenario, the SNWA will fund and construct four monitoring wells at the locations generally identified on the attached map as SNWA-1, 161W514M, Ash Meadows Mid-Field and Corn Creek Mid-Field. Further, the Parties agree to work together to ensure that both Ash Meadows Mid-Field and Corn Creek Mid-Field wells are located and constructed in a cost-effective manner, while meeting the objectives of this plan and agree to limit the combined depths of these wells to 3,000 ft. The Parties may also elect to locate and construct a single well at either location, but not at a depth greater than 3,000 ft. It is further understood that SNWA has never achieved a drilling depth of 3,000 feet through alluvium, and therefore best efforts will be used as the measure of success to meet the objectives of the plan including the associated monitoring needs.
- It is anticipated that SNWA-1 will be constructed and due to access issues and constraints, the construction contracting will be handled through the U.S. Department of Defense – Nellis Air Force Base (DoD) with funding provided through either SNWA or the Federal Agencies (SNPLMA) as noted above. The party responsible for drilling SNWA-1 will be subject to the conditions outlined in EXHIBIT B.
- To ensure baseline aquifer conditions are established, all Parties will use their best efforts to complete, and make available for sampling, all new monitoring wells described in Table 1 at least one year prior to the development of SNWA water rights in Three Lakes Valley South. The Federal Agencies agree to expedite NEPA and other clearances, within the limits of applicable laws, to help meet this goal.
- The construction of the new monitoring wells is contingent upon accessibility and issuance of appropriate rights-of-way by various Federal and State agencies. The wells will be completed in either the basin-fill, regional carbonate-rock or both (dual completion) aquifers as indicated in Table 1.
- Except for SNWA-1 as provided below, SNWA will begin continuous measurement of water levels at all new wells listed in Table 1 upon their completion, contingent upon accessibility and issuance of appropriate rights-of-way by various Federal and State agencies. Water level-measuring equipment shall be purchased and installed by the party that was responsible for completion of the well.
- The SNWA will assume all long term maintenance of each new monitoring well. Due to access issues, SNWA maintenance responsibilities for monitoring well SNWA-1 will be handled through the DoD, with funding provided through either SNWA or SNPLMA.

**Table 1 – Description of Monitoring Wells**

Site Name	Site Type	Contributing Unit	Monitoring Frequency
USBLM Corn Creek	Existing Well	Basin-fill	Quarterly
USGS – Cow Camp	Existing Well	Carbonate	Quarterly
USFWS DR-1	Existing Well	Carbonate	Biannual
USFWS SBH-1	Existing Well	Carbonate	Quarterly
USAF Alpha-2	Existing Well	Basin-fill	Intermittent
USAF Alpha-3	Existing Well	Basin-fill	Intermittent
SM-23-1	Existing Well	Carbonate	Quarterly
Army-6a	Existing Well	Clastic	Biannual
Army-2	Existing Well	Basin-fill	Biannual
Army-3	Existing Well	Volcanic	Biannual
Cactus Springs 3	Existing Well	Unknown	Biannual
USAF Well 3	Existing Well	Basin-fill	Biannual/
Tracer Well 3	Existing Well	Carbonate	Monthly
USAF 2372-1 (or new)	Existing Well	Basin-fill	Quarterly/
TW-3	Existing Well	Carbonate	Intermittent
SNWA-1	New Well	Carbonate targeted	Continuous
FA-1	New Well	Carbonate targeted	Continuous
161W514M	New Well	Dual - Carbonate & Basin-fill	Continuous
AM-Mid-field	New Well	Carbonate targeted	Continuous
Corn Creek Mid-field	New Well	Carbonate targeted	Continuous
SNWA-3	New Well	Basin-fill	Continuous
Creech Near-field	New Well	Carbonate targeted	Continuous

*Note: “New Well” - wells that may be drilled by the either the Federal Agencies or the SNWA as described previously*

#### *Production Well Monitoring*

- SNWA will continuously meter production wells for discharge and water levels.

#### *Water Chemistry Analyses*

- SNWA will collect and analyze water chemistry for parameters listed in Table 2 at all production wells annually.
- The Parties, according to their respective roles under SNPLMA as amended, will pursue SNPLMA funds to collect and analyze water chemistry in all seven new monitoring wells constructed.
- If SNPLMA funding is available:
  - The Parties, will use SNPLMA funds to conduct all baseline sampling of the new wells, beginning when each well is available for sampling and continuing through the



first 4 years of SNWA pumping in Three Lakes Valley South. The sampling interval will be determined through a consensus by the TRP.

- After the fourth year, SNWA will fund sampling in each of the seven new wells as determined by the TRP. Through consensus, the TRP will recommend sampling frequencies, and water chemistry parameters to be collected and analyzed.
- If SNPLMA funding is not available:
  - SNWA will collect and analyze water chemistry in those new wells constructed by SNWA. The parameters listed in Table 2 will be analyzed following well completion, and every two years for the first four years, once pumping begins.
  - After the fourth year, SNWA will fund sampling in each of the new wells as determined by the TRP. Through consensus, the TRP will recommend sampling frequencies, and water chemistry parameters to be collected and analyzed.
- The Parties acknowledge that, although it is not expected that water quality sampling will be constrained by the diameter of the casing and depths to water, under certain situations, sampling may be constrained and therefore monitoring data and frequency may be altered to accommodate those instances.
- All analyses shall be conducted and reported in accordance with standard EPA listed methods.
- Sampling frequency and location, and water chemistry parameters analyzed may be modified as a result of consensus recommendations from the TRP.
- SNWA shall make the monitoring wells available to the Federal Agencies for additional data collection.
- Sampling at SNWA-1 for parameters listed in Table 2 will be conducted by DoD personnel through SNWA or SNPLMA funding. If the other parties need access to obtain additional samples, it would be subject to Appendix B requirements.

Table 2 – Water Chemistry Parameters

Field Parameters	Major Ions	Isotopes	Metals
Temperature	TDS	Oxygen-18	Arsenic
pH	Calcium	Deuterium	Barium
Electrical conductivity	Sodium	Tritium	Cadmium
	Potassium	Chlorine-36	Chromium
	Chloride	Carbon-14	Lead
	Bromide	Carbon-13	Mercury
	Fluoride		Selenium
	Nitrate		Silver
	Phosphate		
	Sulfate		
	Carbonate alkalinity		
	Alkalinity		
	Silica		
	Aluminum		
	Iron		
	Manganese		
	Magnesium		

*Corn Creek Spring Discharge*

SNWA will ensure the continued monitoring of Corn Creek Spring with surface water gage: *USGS Gaging Station 09419625*, which is currently jointly funded by NDWR, SNWA, and the USGS. The U.S. Fish and Wildlife Service will fund the USGS to continuously monitor Corn Creek Spring 3.

*Cactus Springs*

BLM will install a shallow piezometer in proximity to Cactus Springs to monitor water levels. Direct measurements of discharge from Cactus Spring are difficult because of the low flow volume and diffuse nature of discharge.

*Elevation Control*

Elevation control will be established for each new well by the party responsible for funding that well. The TRP will examine the elevation control data for those wells in Table 1 and determine if additional elevation control is necessary. The Parties will work together to provide the funding for any additional elevation control.

*Quality of Data*

The Parties will ensure that measurements are made and data are collected according to USGS established protocols, unless otherwise recommended by the TRP.



### *Reporting*

- Monitoring procedures and protocols will be determined by the TRP prior to initiation of monitoring.
- All data collected under or as described in this Plan, shall be fully and cooperatively shared among the Parties. All raw data shall be archived by SNWA and made available upon request, including laboratory reports, QA/QC data, and copies of chain of custody documentation. Nothing in this agreement shall prevent Parties from sharing data in other forms such as spreadsheets or databases.
- Water level and water production data shall be made available to the other Parties within 45 calendar days of collection. Water quality laboratory reports shall be made available to the other Parties within 45 calendar days of receipt.
- SNWA will submit an annual monitoring report to the State Engineer's Office and the Federal Agencies summarizing collected data and monitoring activities. The Federal Agencies may, at their option, provide comments to the State Engineer's Office on the annual report.

### **Management Requirements**

#### *General*

Through the TRP, described below, the Parties will collaborate on technical data collection and analysis to ensure decisions are consistent with the common goal to manage the development of the SNWA Water Rights from Three Lakes Valley South without resulting in any injury to senior federal water rights or unreasonable adverse impacts to federal water resources. Decisions must be based on the best scientific information available and the Parties will collaborate on technical data collection and analysis. The Parties will use existing data, data collected under this Plan, and the calibrated Death Valley Regional Flow System (DVRFS) numerical model or any other appropriate model (collectively, the model), as a tool(s) to evaluate the effects of groundwater development in the region. The Parties agree that this model will be used to inform management about the potential for impacts of pumping to propagate through the regional carbonate-rock aquifer, as well as the effectiveness of the potential mitigation actions.

#### *Technical Review Panel*

The Parties will create and convene a Technical Review Panel (TRP) by March 1, 2006. The purpose of the TRP is to review, analyze, and interpret information collected under this Plan, evaluate the results of the model, and make recommendations to management. Membership will include representatives of SNWA and each of the Federal Agencies.

To assist the TRP, the Parties mutually agree to invite a representative of the State Engineer's Office and other entities to assist and participate in the TRP as appropriate.

The TRP shall meet annually through the first three years of SNWA pumping in Three Lakes Valley South and then as mutually agreed upon by the Parties.

The TRP will:

1. strive for consensus in all decisions
2. disseminate data and provide a scientific and technical forum to evaluate data and analyses, including hydrologic parameters of the model and model results;
3. review data collection and quality assurance procedures;
4. identify needs for additional data collection and scientific investigations;
5. discuss values for monitored variables (water levels, spring discharges, etc.) that may be of concern to the Parties; and
6. provide a forum for discussion to help develop agreement for prescribed courses of action on technical issues and make recommendation to respective managers

#### *Numerical Groundwater Flow Modeling*

The Parties acknowledge that model results must be qualified based on a comparison to the accuracy of the model and the capability of the model to predict actual conditions. As the effects of pumping in the region on water levels and spring flows are measured, refinement of the model will be necessary to achieve better agreement with the measurements.

Furthermore, the collection of additional geologic, geophysical, and/or geochemical data may indicate that modification of the conceptual and numerical model of the groundwater system is warranted.

- The Parties will share all geologic, geophysical, hydrologic, and geochemical information collected in Three Lakes Valley South and vicinity. This data will be evaluated by the TRP for inclusion into the model.
- The Federal Agencies will maintain, update, and operate the calibrated DVRFS model, in cooperation with the TRP, as information becomes available.
- The Federal Agencies will provide model output in cooperation with the TRP for evaluation by the TRP in the form of drawdown maps and plots of simulated water levels through time for the aquifer system, unless otherwise recommended by the TRP.
- The Parties have a shared responsibility to pursue funding, including funds that may be available under the SNMPLA, to maintain, update, and utilize the model as information becomes available. If any Party chooses not to contribute its own funds and/or other resources toward the model, they will provide best efforts to support the other Parties' actions to develop, update, refine, maintain, or operate the model for purposes of evaluating the effects of SNWA's pumping.

#### *Criteria Initiating Decision-Making and/or Mitigation*

The Parties recognize that the establishment of predicted early warning indicators to avoid injury to senior federal water rights or unreasonable adverse impacts to federal water resources may not be established until there is an appropriate amount of monitoring data to document the effects of pumping and the model is calibrated to actual pumping effects. The TRP will be responsible for determining the sufficiency of monitoring data and recommending specific early warning indicators, based on actual hydrologic effects of pumping, to their respective managers.



- Until the Parties agree to specific indicators that forecast unreasonable adverse effects of pumping, the TRP will review water-level responses and model results to determine if unreasonable adverse effects to the federal water rights or water-related resources is occurring due to pumping by SNWA.
- Criteria for initiation of decision-making and/or mitigation actions are as follows:

A. TRP Consultation.

Any Party may initiate a TRP consultation when that Party believes a potential injury to senior federal water rights or federal water resources is predicted due to SNWA pumping in Three Lakes Valley South based on data collection and model results.

Actions under the TRP consultation will include:

- 1) Parties shall notify each other and the TRP will confer within 30 calendar days;
- 2) The TRP will evaluate the modeling parameters, variances to water level changes relative to modeling predictions, the translation of modeling variances to areas of interest and variables influencing the model results. The TRP objective for the consultation is to determine if the response may be due to pumping of the SNWA Water Rights in Three Lakes Valley South.
  - i. The TRP will compare the observed field data with model predictions to evaluate how well the model predictions match observed drawdown and will discuss potential changes to the model as agreed to by consensus of the TRP. All Parties recognize that future modeling of predicted effects for the verification of the model will be a necessary component to determine the validity of the modeling results and any course of action.
  - ii. Based on observed data, the model will be recalibrated if necessary, and rerun to evaluate the effects of pumping of the SNWA Water Rights in Three Lakes Valley South on water rights and water related resources of the Federal Agencies.
  - iii. If the TRP agrees the recalibrated model does not predict a potential injury to senior federal water rights or unreasonable adverse impacts to federal water resources, no further management actions will be taken at that time.
  - iv. If any member of the TRP thinks the recalibrated model predicts a potential injury to senior federal water rights or unreasonable adverse impacts to federal water resources, then the TRP shall work to develop consensus-based courses of action that manage or mitigate those effect(s). The TRP will also use the model to evaluate the effects of various courses of action to manage or mitigate those effect(s) outlined in the Mitigation Section. The TRP will convey all recommended courses of action to their respective managers, and the Parties will proceed to Actions to Manage or Mitigate Possible Effects, B.

- v. If the recalibrated model predicts a potential injury to a senior federal water rights or unreasonable adverse impacts to federal water resources and the TRP is unable to develop a consensus-based course of action, the TRP will notify their respective managers, and the Parties will proceed to Actions to Manage or Mitigate Possible Effects, B.

B. Actions to Manage or Mitigate Possible Effects.

- 1) If and when the TRP recommends, by consensus, that predicted or measured responses to a federal water right or water-related resources represents a possible loss to water rights or unreasonable adverse effect to resources, the Parties will consider the TRP's recommended courses of action. Upon receiving any consensus-based TRP recommendation, the Parties may seek a negotiated resolution of a course of action to manage or mitigate the effect. If the Parties cannot reach consensus, any party may refer the issue to the Nevada State Engineer after notifying all other Parties of such actions.
- 2) If and when the TRP notifies their respective managers that it is unable to develop a consensus-based determination that a change is predicted to occur or a course of action is recommended, the Parties will negotiate mutually acceptable course(s) of action. If that is not successful, any party may refer the issue to the Nevada State Engineer after notifying all other Parties of such actions.

**Mitigation Requirements**

SNWA will mitigate any injury to senior federal water rights or unreasonable adverse impacts to federal water resources either as agreed upon by the Parties or after the State Engineer determines whether there are any such impacts due to pumping of SNWA Water Rights. SNWA will take the necessary steps to ensure that mitigation actions are feasible. Mitigation measures include, but are not limited to one or more of the following:

1. Geographic redistribution of pumpage;
2. Reduction or cessation in pumpage;
3. Restoration/modification of existing habitat;
4. Establishment of new habitat;
5. Augmentation of water resources with pumped groundwater;
6. Other measures as agreed to by the Parties and/or required by the State Engineer, to the extent not inconsistent with this agreement

**Modification of the Plan**

The Parties may modify this Plan by mutual agreement.



## EXHIBIT B – CONDITIONS FOR DRILLING AND/OR MONITORING

### THE SNWA-1 WELL

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Drilling and/or monitoring the SNWA-1 well on the Nellis Test and Training Range will be subject to the following conditions:

1. Approved providing no major mission or National need arises
2. Assign 98RANW Project Officer – 98 SRSS/CEO (for immediate oversight of daily operations)
3. The parties responsible for drilling hires a Unexploded Ordinance Technician for safety during operations
4. Standard range stipulations regarding foreign nationals, cameras, electronic, weapons, safety brief, etc. shall be observed
5. All public relations will be cleared through Nellis Public Affairs prior to release
6. The parties responsible for drilling and monitoring are also responsible for obtaining all permits/environmental requirements for the activity
7. Violation of any range safety/security rules will immediately halt the project
8. Monitoring well SNWA-1 will only be used for monitoring and never for production



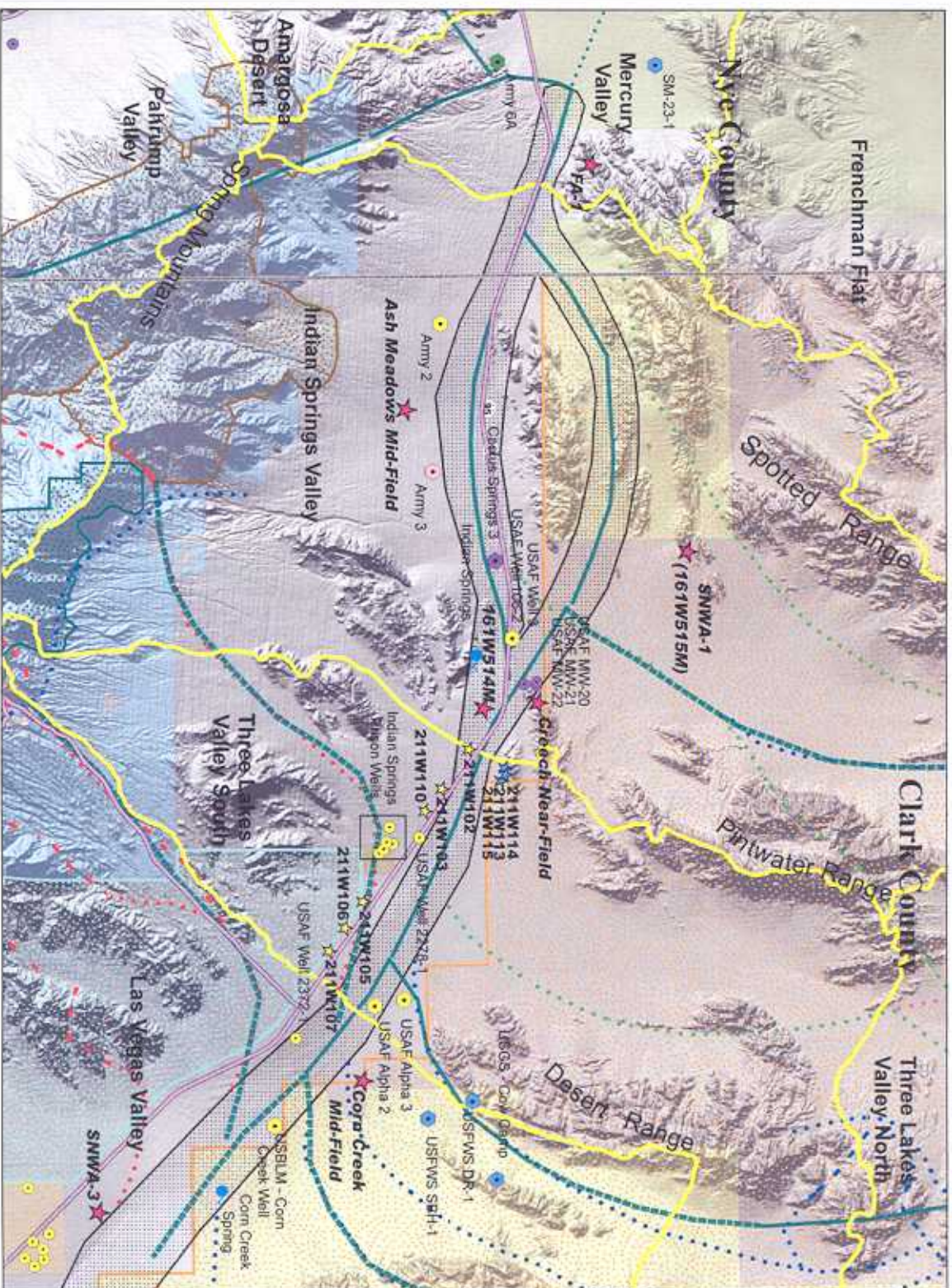


Figure 1

Existing and Proposed Monitor Wells in Three Lakes Valley South and Vicinity

## Explanation

